Remarks Honoring Educators of Science, Technology, Engineering, and Mathematics

January 6, 2010

Thank you, everybody. Please have a seat. Thank you. Well, it is wonderful to be here. Barbara, thank you for the outstanding introduction. I want to acknowledge a few other special guests that we have here. First of all, my terrific Vice President, mainly because he takes orders from Dr. Jill Biden. [*Laughter*] Dr. Jill Biden and Vice President Joe Biden are here. Somebody—I've never met somebody who's more passionate about making sure that young people do well than my Secretary of Education, Arne Duncan—Arne Duncan. My—before I won a Nobel Peace Prize, this guy had won it, and nobody questioned whether he deserved it or not—[*laughter*]—my Secretary of Energy, Steven Chu.

Three wonderful Members of Congress who have devoted a lot of energy to the issue of science and math education; I want to acknowledge them. Representative Bart Gordon, who's the chairman of the Science and Technology Committee, Democrat from Tennessee—where's Bart? There he is—thank you, Bart. Representative William Lacy Clay, from the great State of Missouri, and his district is home to two teachers who are being honored here today, so he's very proud of them. And a great champion of education generally, he's the chairman of the Education and Labor Committee, Representative George Miller of California who's in the house.

We also—since so many people were inspired in this country originally from our space program to think about math and science in new ways, it's terrific to have our NASA Administrator and former astronaut Charles Bolden in the house. We've got Regina Dugan, who is the Director of the Defense Advanced Research Projects Agency, or DARPA, as many of you know. We can thank them for the Internet and all kinds of other stuff. So please give Regina a big round of applause. And our National Science Foundation Director, Arden Bement, is here. Thank you so much, Arden.

Now, most importantly, to all the teachers who are here, as President, I am just thrilled to welcome you, teachers and mentors, to the White House, because I believe so strongly in the work that you do. And as I mentioned to some of you, because I've got two girls upstairs with math tests coming up, I figure that a little extra help from the best of the best couldn't hurt. So you're going to have assignments after this. [*Laughter*] These awards were not free. [*Laughter*]

We are here today to honor teachers and mentors like Barb who are upholding their responsibility not just to the young people who they teach, but to our country, by inspiring and educating a new generation in math and science. But we're also here because this responsibility can't be theirs alone. All of us have a role to play in building an education system that is worthy of our children and ready to help us seize the opportunities and meet the challenges of the 21st century.

Whether it's improving our health or harnessing clean energy, protecting our security or succeeding in the global economy, our future depends on reaffirming America's role as the world's engine of scientific discovery and technological innovation. And that leadership tomorrow depends on how we educate our students today, especially in math, science, technology, and engineering.

But despite the importance of education in these subjects, we have to admit we are right now being outpaced by our competitors. One assessment shows American 15-year-olds now ranked 21st in science and 25th in math when compared to their peers around the world. Think about that, 21st and 25th, that's not acceptable. And year after year the gap between the number of teachers we have and the number of teachers we need in these areas is widening. The shortfall is projected to climb past a quarter of a million teachers in the next 5 years, and that gap is most pronounced in predominately poor and minority schools.

And meanwhile, other nations are stepping up, a fact that was plain to see when I visited Asia at the end of last year. The President of South Korea and I were having lunch, and I asked him, What's the biggest education challenge that you have? He told me his biggest challenge in education wasn't budget holes, it wasn't crumbling schools, it was that the parents were too demanding. [*Laughter*] He's had to import thousands of foreign teachers because parents insisted on English language training in elementary school. The mayor of Shanghai, China, a city of over 20 million people, told me that even in such a large city, they had no problem recruiting teachers in whatever subject, but particularly math and science, because teaching is revered and the pay scales are comparable to professions like doctors.

So make no mistake: Our future is on the line. The nation that out-educates us today is going to out-compete us tomorrow. To continue to cede our leadership in education is to cede our position in the world. That's not acceptable to me, and I know it's not acceptable to any of you. And that's why my administration has set a clear goal: to move from the middle to the top of the pack in science and math education over the next decade.

To reach this goal, we've paid particular attention to how we can better prepare and support, reward and retain, good teachers. So the Recovery Act included the largest investment in education by the Federal Government in history while preventing more than 300,000 teachers and school workers from being fired because of State budget shortfalls. The Department of Education will be announcing an additional $10 [$100][*] million in grants for innovative programs to train new teachers, whether a young person embarking on his or her first career, or a scientist or engineer starting his or her second.

And under the outstanding leadership of Arne Duncan, we've launched a $4 billion Race to the Top Fund, one of the largest investments in education reform in history. Through the Race to the Top, States are competing for funding, and producing the most innovative programs in science and math will be an advantage in this competition, as will allowing scientists and statisticians and engineers to more easily become teachers. We want States and school districts to start being more creative about how they can attract more science and math teachers.

We're also pursuing reforms to better serve America's math and science teachers so that each and every one can be as effective as the educators that we honor today. So we're challenging States to raise standards, to use data to better inform decisions, to recruit and retain more good teachers, and to promote stronger curricula that encourage young people to not only learn the facts in a textbook, but to explore and discover the world around them.

Now as important as this will be, the success we seek is not going to be attained by government alone. And that's why I've challenged the scientific community to think of new and creative ways to engage young people in their fields. That's why we launched the "Educate to

[*] White House correction.

Innovate" campaign, a nationwide effort by citizens, non-for-profits, universities, and companies from across America to help us move to the top of the pack in math and science education.

And today we're expanding this campaign. Several new public-private partnerships are going to offer additional training to more than 100,000 teachers and prepare more than 10,000 new teachers in the next 5 years alone. And through the partnerships we are announcing today, support for the "Educate to Innovate" campaign has doubled to more than half a billion dollars in private funding. That's a figure that we only expect to grow.

To help educators already in the classroom, Intel is launching a 10-year, $200 million campaign to train math and science teachers in all 50 States to better use new technologies and techniques in their lessons plans. PBS and the National Science Teachers Association will also create a new online platform so science and math teachers can share best practices and learn from one another.

To bring more educators into the classroom, the National Math and Science Initiative is working with Texas Instruments and the Dell Foundation to prepare almost 5,000 new math and science teachers in the next 5 years through a program that allows young people to earn teaching certificates and science degrees at the same time. And presidents from more than 75 of the largest public universities in the country have committed to produce thousands of additional science and math teachers at their institutions. And the Woodrow Wilson National Fellowship Foundation is expanding, with the help of several States and nonprofits, to place more math and science teachers in more high-need schools.

And just because you aren't a teacher, that doesn't mean you can't help educate our young people. We need to look no further than the mentors that we honor here today. I'm calling on all 200,000 scientists who work for the Federal Government to do their part in their communities: to speak at schools, to create hands-on learning opportunities through efforts like National Lab Day, and to help stoke that same curiosity in students which perhaps led them to pursue a career in science in the first place. NASA will also be launching an enrichment program to bring their scientists and engineers to students in the classroom and to bring students to NASA, so that they might experience that same sense of wonder and excitement while maybe learning a little bit at the same time.

And finally, as President, I'm going to try to do my part. We've held science-themed events like astronomy night here at the White House. That was very fun, by the way. [*Laughter*] We're planning an annual science fair to honor the student winners of national science and technology competitions. Secretary Duncan and I will be working to promote the teaching profession to show young people that teaching is one of the best and most rewarding ways to serve our country. And we are of course recognizing the folks in this room with awards for excellence in teaching and mentoring.

It's with these men and women that I'd like to conclude today, because in the end, the work that you do and the difference you make are what all these reforms are all about. Whether it's showing students how to record the habits of a resident reptile or teaching kids to test soil samples on a class trip to Costa Rica, whether it's helping young people from tough neighborhoods in Chicago to become junior paleontologists or creating a mentoring program that connects engineering students with girls and minorities, who are traditionally underserved in the field, all of you are demonstrating why teaching and mentoring is so important, and why we have to support you, equip you, and send in some reinforcements for you.

Every person in this room remembers a teacher or mentor that made a difference in their lives. Every person in this room remembers a moment in which an educator showed them something about the world, or something about themselves, that changed their lives. It could be a word of encouragement, a helping hand, a lesson that sparked a question that ignited a passion and ultimately may have propelled a career. And innovators, folks like Michael Dell who are here today, are made in those moments. Scientists and engineers are made in those moments; doctors are made in those moments; teachers are made in those moments, those small interactions.

So yes, improving our schools is about training a new generation of workers and succeeding in new industries. But a good education, provided with the help of great teachers and mentors, is about something more. It's about instilling in a young person a love of learning and a sense of possibility in their own lives, an understanding of the world around them that will serve them no matter what they do. That's what we have to do as a nation. That's what all of you do every day. And that's what, at root, will lead to greater opportunities and brighter horizons for the next generation and for generations to come.

So thank you very much everybody. Congratulations.

NOTE: The President spoke at 1:46 p.m. in the East Room at the White House. In his remarks, he referred to Barbara Stoflet, recipient of the Presidential Award for Excellence in Mathematics and Science Teaching, who introduced the President; President Lee Myung-bak of South Korea; Mayor Han Zheng of Shanghai, China; and Michael S. Dell, founder and member of the board of directors, Michael & Susan Dell Foundation.

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